

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
24 November 2005 (24.11.2005)

PCT

(10) International Publication Number
WO 2005/112081 A1

(51) International Patent Classification⁷: **H01L 21/205**

(21) International Application Number:
PCT/KR2005/001013

(22) International Filing Date: 8 April 2005 (08.04.2005)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:
10-2004-0023988 8 April 2004 (08.04.2004) KR
10-2004-0054337 13 July 2004 (13.07.2004) KR

(71) Applicant (for all designated States except US): **SEBINE TECHNOLOGY, INC.** [KR/KR]; #405 Internet Business Incubator Center, Mokwon University, 800 Doan-dong, Seo-gu, Daejeon 302-729 (KR).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **KANG, Won Gu**

[KR/KR]; #405 Internet Business Incubator Center, Mokwon University, 800 Doan-dong, Seo-gu, Daejeon 302-729 (KR).

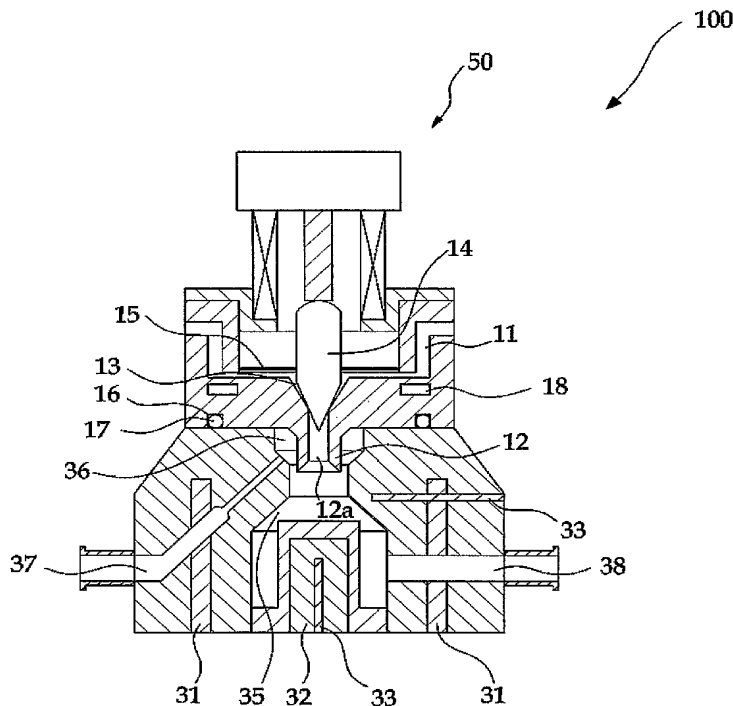
(74) Agent: **JIN, Yong Suk**; #513 Cheongsa office building, 915 Dunsan-dong, Seo-gu, Daejeon 302-120 (KR).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,

[Continued on next page]

(54) Title: VAPORIZER WITH INTEGRAL DIAPHRAGM



(57) Abstract: As described above, the present invention relates to a vaporizer integral with a diaphragm, the vaporizer comprising: a liquid source supplying part 10; a vaporizing part 30; a recess 16; a O-ring 17; said liquid source supplying part including a source intaking passage 11 for receiving a liquid source, an intaking tube 12 communicated with the source intaking passage 11 and having a fine hole 12a formed thereon, a stopper 13 formed on a place at which the source intaking passage 11 and the intaking tube 12 are joined together, an adjusting pin 14 for controlling supplying of the liquid source from the source intaking passage 11 to the intaking tube 12, and a diaphragm 15 integral with the adjusting pin 14; said vaporizing part 30 including a first heater 31 attached to a body of the vaporizing part 30 to heat the vaporizing part, a vaporizing chamber 35 for vaporizing the liquid source, a gas transporting passage 37 for supplying a transporting gas, and a discharging port 38 for communicating with the vaporizing chamber 35 and for discharging the transporting gas

and the vaporized liquid source to the outside of the vaporizing chamber 35, and said recess 16 being formed on selected one of the liquid source supplying part 10 and the vaporizing part 30 to minimize a thermal contact area therebetween, and coupled with the O-ring 17.



ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— *with international search report*